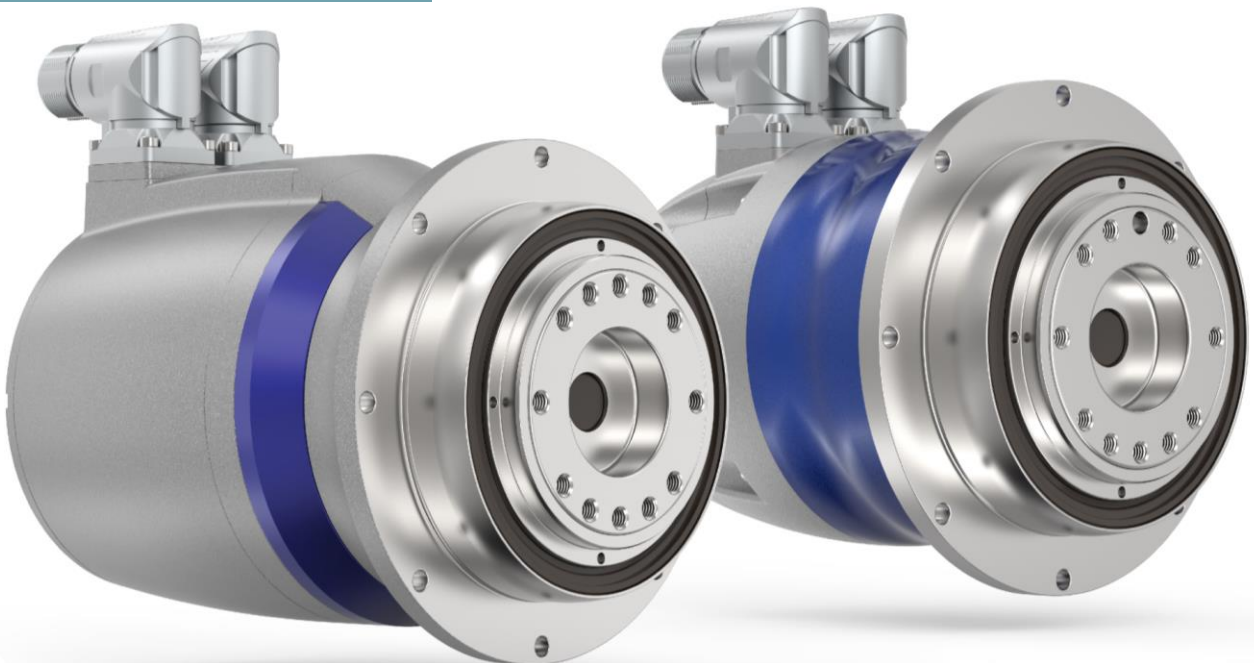


FAQ

Discontinuation of the temperature sensor KTY84-130



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Subject to changes in content and technical specifications.

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1 Why is the temperature sensor option KTY 84-130 discontinued?

The temperature sensor KTY84-130 has already been discontinued by the manufacturer NXP, a direct replacement is not available. Therefore, the use of this temperature sensor in our products has been discontinued as of 01.11.2021.

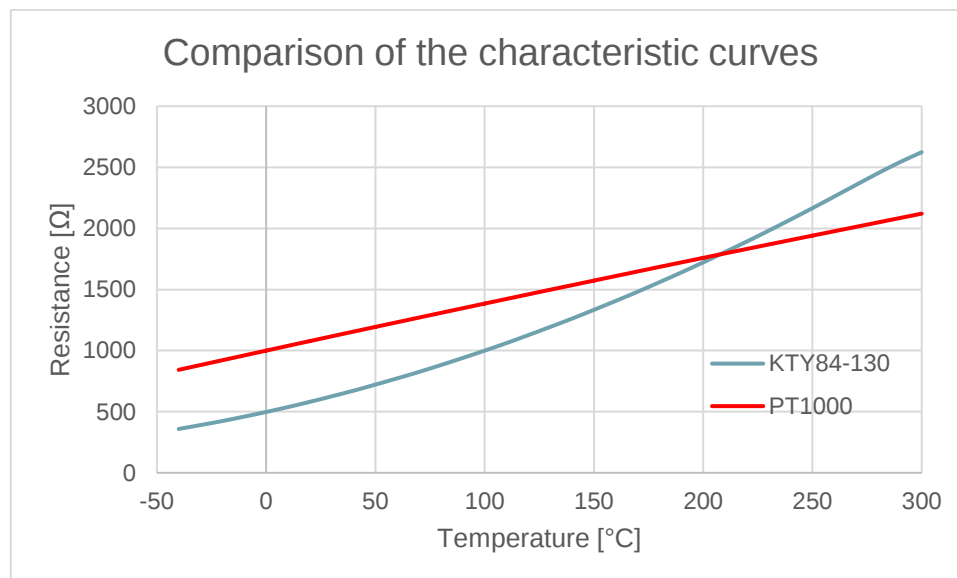
2 Why is the PT1000 used as a replacement for the KTY 84-130?

Since the discontinuation of the KTY84-130, the PT1000 has established itself as the successor in the field of electrical drive technology. Both sensors are temperature sensors with positive temperature coefficients. Due to similar resistance values, usually no adjustment to the hardware of the evaluation electronics is necessary for the evaluation of the PT1000.

Due to differences in the characteristic curves, the software of the evaluation unit must support the parameterisation of the PT1000-specific characteristic curve (a software update may be required for this).

3 What are the differences between KTY84-130 and PT1000?

The resistance values of the two temperature sensors differ from each other as follows:



Temperature [°C]	PT1000 Resistance, type [Ohm]	KTY84-130 Resistance, type [Ohm]
-40	843	359
0	1000	498
20	1078	581
50	1194	722
100	1385	1000
150	1573	1334
200	1759	1722
250	1941	2166
300	2121	2624

More detailed information (e.g. resistance values in temperature steps of 10°C) is available on request. For additional information, please contact our sales department .

4 What should be considered when using the PT1000 in new machines?

During project planning, check:

- whether the inverter system used supports the PT1000 temperature sensor.
- whether the inverter version / hardware revision you are using supports the PT1000 temperature sensor.
- whether the firmware version you are using supports the PT1000 or whether an update to a corresponding version is possible.

Please check the usability of the inverter on the basis of the documentation of the inverter manufacturer, or contact the respective manufacturer directly. For information on frequently used inverter types, see below.

Commissioning

- During commissioning, select the temperature sensor PT1000

If the Pt1000 is not supported, but the inverter allows manual parameterisation of a temperature sensor characteristic curve, the characteristic curve can be stored in the inverter in this way.

5 What has to be considered in the case of a spare part (replacement of a motor / servo actuator with KTY 84-130 by a motor / servo actuator with PT1000)?

During preparation check

- whether the inverter version / hardware revision you are using supports the PT1000 temperature sensor.
- whether the firmware version you are using supports the PT1000 or whether an update to a corresponding version is possible.
- the following options if the use of the PT1000 is not possible in your application:
 - Versions with KTY are still available for repair and spare parts supply until 01.04.2024
 - Use of a PT1000/KTY converter, see below
 - Exchange of the inverter

Commissioning

- When commissioning the replacement motor, select the PT1000 temperature sensor
- If the PT1000 is not supported, but the inverter allows manual parameterisation of a temperature sensor characteristic curve, the characteristic curve can be stored in the inverter in this way.

Note: If a motor / servo actuator with PT1000 is operated on an inverter that is parameterised for use with KTY84-130, a motor temperature that is too high will be indicated at temperatures < 200 °C. In this case, the warning threshold / error threshold is reached too early.

6 Which inverters support the use of the PT1000?

To the best of our knowledge, the following inverters / firmware versions enable the use of the PT1000 or enable the parameterisation of a manual temperature sensor characteristic curve.

For binding information on which inverters support the PT1000 as a temperature sensor, please contact the respective manufacturers.

For manufacturers / inverter types not mentioned, please check the usability on the basis of the inverter manufacturer's documentation or contact the respective manufacturer directly.

B&R Industrial Automation GmbH:

Devices of the ACOPOS series support the manual input of a temperature sensor characteristic curve.

Beckhoff Automation GmbH & Co. KG

Current AX5000 and AX8000 series units support manual entry of a temperature sensor characteristic curve.

The following firmware versions support the manual entry of a temperature sensor characteristic curve:

AX5000: Firmware $\geq$ Rev 210

AX8000: all firmware versions

Bosch Rexroth AG

Current units in the Indradrive series support the use of the PT1000 as a temperature sensor.

The following firmware versions support the selection of the PT1000 (parameter P-0-0512):

MPx18: Firmware $\geq$ FW 18V34

MPx20: Firmware $\geq$ FW 20V06

For older / other firmware versions, a manual temperature sensor characteristic can be set in parameter P-0-0513.

Lenze

Current devices from Lenze support the use of the PT1000 as a temperature sensor.

The following firmware versions support the selection of the PT1000:

8400 TopLine: from V17.00.00

9400 HighLine: from V14.06.00

9400 ServoPLC: from V08.06.00

I700 from V02.10.12

I950 from V01.00.05

Further information can be found under the following link:

https://download.lenze.com/AKB/English/201700193/Lenze_AKB-201700193_PT1000_EN.pdf

SIEMENS AG

Current devices of the SINAMICS S120 series support the use of the PT1000 as temperature sensor.

The following firmware versions support the selection of the PT1000:

SINAMICS S120: $\geq$ V4.7 HF17

Further information can be found under the following links:

[SINAMICS, SIMOTICS: Discontinuation of the KTY84-130 temperature sensor - ID: 109478077 - Industry Support Siemens](#)

[SINAMICS S120: Evaluation of Pt1000 temperature sensors - ID: 109483388 - Industry Support Siemens](#)

[SINAMICS & SIMOTICS S/M/L/T Motion Control Motors: Discontinuation of the KTY84... - ID: 109478106 - Industry Support Siemens](#)

7 What can I do if the inverter used does not support the PT1000?

If the use of the PT1000 is not possible in your application, check the following options:

- Versions with KTY are still available for repair and spare parts supply until 01.04.2024
- Use of a PT1000/KTY converter
- Exchange of the inverter

If the inverter used does not support the use of the PT1000 as a temperature sensor, it may be possible to use a PT1000/KTY converter.

A PT1000 sensor can be connected to the input of a PT1000/KTY converter. The converter outputs the equivalent resistance of a KTY84-130 sensor.

A PT1000 sensor can thus be operated on evaluation electronics for KTY84-130.

The following information is non-binding and may help to avoid having to replace the converter. The converters mentioned are not sold by WITTENSTEIN, nor does WITTENSTEIN provide technical support for these products. Other manufacturers' products may offer a comparable solution.

Examples of available PT1000/KTY84-130 converters

PT1000/KTY converter for top hat rail mounting / universal use		
	Manufacturer	REISSMANN Sensortechnik GmbH
	Designation	CONV-DIN24-Pt1000
	Article number	004894
	Temperature sensor IN	PT1000
	Temperature sensor OUT	KTY84-130
	Supply voltage	24 V DC (external power supply necessary)
	Dimensions	107 x 99 x 22.5 mm
	Further information	http://www.reissmann.com

PT1000/KTY84-130 converter for direct signal looping into SIEMENS signal cable (version with 25-pole D-SUB connection)		
	Manufacturer	REISSMANN Sensortechnik GmbH
	Designation	CONV-SUB-Pt1000-KTY84
	Article number	005869
	Temperature sensor IN	Pt1000
	Temperature sensor OUT	KTY84-130
	Supply voltage	5 V DC (converter uses the power supply of the encoder)
	Dimensions	76 x 60 x 18 mm
	Further information	http://www.reissmann.com

8 How long are spare parts with KTY84-130 available?

For products with KTY84-130 we offer a repair / and spare parts supply until 01.04.2024. For additional information please contact our sales department.

Revision history

Revision	Date	Comment	Chapter
01	17.07.2023	New version	All



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